Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	204	generat$3 near3 outline and (2D or two adj dimensional$1)and array and (area or volume or region)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/11/13 13:33
L2	172	1 and(filters or correct$3 or error)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/11/13 13:34
L3	12	2 and(filters or correct$3 or error)with mask	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/11/13 13:34
L4	7	3 and @ad<"20000229"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/11/13 13:35

Dialog DataStar

options | logoff | feedback | help

databases | easy search

Advanced Search: INSPEC - 1969 to date (INZZ)

limit

Search history:

No.	Database	Search term	Info added since	Results	
1	INZZ	morphological AND mask	unrestricted	107	show titles
2	INZZ	outline	unrestricted	28679	show titles
3	INZZ	1 AND 2	unrestricted	1	show titles
4	INZZ	1 AND (outline OR boundar OR contour OR edge)	unrestricted	22	show titles
5	INZZ	4 AND (2D OR two AND dimension* OR 2-D)	unrestricted	3	show titles

hide | delete all search steps... | delete individual search steps...

Enter your search term(s): Search tips

whole document

Information added since: or: none
(YYYYMMDD)

search

Select special search terms from the following list(s):

- Classification codes A: Physics, 0-1
- Classification codes A: Physics, 2-3
- Classification codes A: Physics, 4-5
- Classification codes A: Physics, 6
- Classification codes A: Physics, 7
- Classification codes A: Physics, 8
- Classification codes A: Physics, 9
- Classification codes B: Electrical & Electronics, 0-5
- Classification codes B: Electrical & Electronics, 6-9
- Classification codes C: Computer & Control
- Classification codes D: Information Technology
- Classification codes E: Manufacturing & Production

- Treatment codes
- INSPEC sub-file
- Publication types
- Language of publication

Top - News & FAQS - Dialog

Document

Select the documents you wish to save or order by clicking the box next to the document, or click the link above the document to order directly.

☑ **document 3 of 3** Order Document

INSPEC - 1969 to date (INZZ)

Accession number & update
6410714, B2000-01-6135C-020, C2000-01-5260D-005; 19991201.

Title
Extraction of moving objects for content-based video coding.

Author(s)
Meier-T; Ngan-K-N.

Author affiliation
Dept of Electr & Electron Eng, Western Australia Univ, Nedlands, WA, Australia.

Source
Visual Communications and Image Processing '99, San Jose, CA, USA, 25-27 Jan. 1999.
Sponsors: SPIE, Soc. Imaging Sci. & Technol.
In: Proceedings-of-the-SPIE-The-International-Society-for-Optical-Engineering (USA), vol.3653, pt.1-2, p.1178-89, 1998.

CODEN
PSISDG.

ISSN
ISSN: 0277-786X, CCCC: 0277-786X/98/ ($10.00).

Availability
SICI: 0277-786X(1998)3653:1/2L.1178:EMOC; 1-1.

Publication year
1998.

Language
EN.

Publication type
CPP Conference Paper, J Journal Paper.

Treatment codes
T Theoretical or Mathematical.

Abstract
This paper considers video object plane (VOP) segmentation for the content-based video coding standard MPEG-4. MPEG-4 relies on a content-based representation to provide new functionalities. To take advantage of these functionalities, a prior decomposition of sequences into semantically meaningful, physical objects is required. We formulate this problem as one of separating foreground objects from the background based on motion information. For the object of interest, a **2D** binary model is derived and tracked throughout the sequence. The model points consist of **edge** pixels

detected by the Canny operator. To accommodate rotation and changes in shape of the tracked object, the model is updated every frame. These binary models then guide the actual VOP extraction. Due to the excellent **edge** localization properties of the Canny operator, the resulting VOP contours are very accurate. Both the model initialization and update stage exploit motion information. The main assumption underlying our approach is the existence of a dominant global motion that can be assigned to the background. Areas that do not follow this background motion indicate the presence of independently moving physical objects. **Two** methods to identify such objects are presented. The first one employs a **morphological** motion filter with a new filtering criterion that measures the deviation of the locally estimated optical flow from the corresponding global motion. The second method computes a change detection **mask** by taking the difference between consecutive frames. The first version is more suitable for sequences involving little motion, whereas the second version is stronger at dealing with fast moving objects. (18 refs).

Descriptors

code-standards; digital-filters; feature-extraction; image-motion-analysis; image-recognition; image-segmentation; image-sequences; mathematical-morphology; video-coding.

Keywords

moving objects; content based video coding; video object plane segmentation; VOP; content based video coding standard; MPEG 4; content based representation; functionalities; decomposition; sequences; semantically meaningful physical objects; foreground objects; motion information; **2D** binary model; Canny operator; **edge** pixels; rotation; tracked object; **edge** localization; VOP contours; initialization; update stage; global motion; independently moving physical objects; **morphological** motion filter; filtering criterion; locally estimated optical flow; change detection **mask;** consecutive frames; fast moving objects.

Classification codes

```
B6135C    (Image and video coding).
B6135E    (Image recognition).
B6140B    (Filtering methods in signal processing).
C5260D    (Video signal processing).
C1250M    (Image recognition).
```

Document

Select the documents you wish to save or order by clicking the box next to the document, or click the link above the document to order directly.

☑ **document 2 of 3** Order Document

INSPEC - 1969 to date (INZZ)

Accession number & update
6458275, B2000-02-6135C-044, C2000-02-5260D-037; 20000101.

Title
Video segmentation for content-based coding.

Author(s)
Meier-T; Ngan-K-N.

Author affiliation
Dept of Electr & Electron Eng, Western Australia Univ, Nedlands, WA, Australia.

Source
IEEE-Transactions-on-Circuits-and-Systems-for-Video-Technology (USA), vol.9, no.8, p.1190-203, Dec. 1999. , Published: IEEE.

CODEN
ITCTEM.

ISSN
ISSN: 1051-8215, CCCC: 1051-8215/99/ ($10.00).

Availability
SICI: 1051-8215(199912)9:8L.1190:VSCB; 1-I
Electronic Journal Document Number: S1051-8215(99)09579-8.

Publication year
1999.

Language
EN.

Publication type
J Journal Paper.

Treatment codes
T Theoretical or Mathematical.

Abstract
To provide multimedia applications with new functionalities, the new video coding standard MPEG-4 relies on a content-based representation. This requires a prior decomposition of sequences into semantically meaningful, physical objects. We formulate this problem as one of separating foreground objects from the background based on motion information. For the object of interest, a **2D** binary model is derived and tracked throughout the sequence. The model points consist of **edge** pixels detected by the Canny operator. To accommodate rotation and changes in shape of the tracked object,

the model is updated every frame. These binary models then guide the actual video object plane (VOP) extraction. Thanks to our new boundary postprocessor and the excellent **edge** localization properties of the Canny operator, the resulting VOP contours are very accurate. Both the model initialization and update stages exploit motion information. The main assumption underlying our approach is the existence of a dominant global motion that can be assigned to the background. Areas that do not follow this background motion indicate the presence of independently moving physical objects. **Two** alternative methods to identify such objects are presented. The first one employs a **morphological** motion filter with a new filter criterion, which measures the deviation of the locally estimated optical flow from the corresponding global motion. The second method computes a change detection **mask** by taking the difference between consecutive frames. The first version is more suitable for sequences with little motion, whereas the second version is better at dealing with faster moving or changing objects. Experimental results demonstrate the performance of our algorithm. (26 refs).

Descriptors

code-standards; digital-filters; edge-detection; feature-extraction; image-motion-analysis; image-representation; image-segmentation; image-sequences; mathematical-morphology; video-coding.

Keywords

video segmentation; content based coding; multimedia applications; functionalities; video coding standard; MPEG 4; content based representation; decomposition; sequences; semantically meaningful physical objects; foreground objects; background; motion information; **2D** binary model; **edge** pixels; Canny operator; rotation; video object plane extraction; VOP extraction; **edge** localization properties; contours; model initialization; update stages; independently moving physical objects; **morphological** motion filter; filter criterion; change detection **mask;** moving objects; changing objects.

Classification codes

B6135C (Image and video coding).
C5260D (Video signal processing).

Document

Select the documents you wish to save or order by clicking the box next to the document, or click the link above the document to order directly.

☑ **document 1 of 3** Order Document

INSPEC - 1969 to date (INZZ)

Accession number & update
7991201, A2004-14-6820-025; 20040613.

Title
Strain-driven instability of a single island and a hexagonal island array on solid substrates.

Author(s)
Ni-Y; He-L-H; Song-J.

Author affiliation
Dept of Modern Mech, Univ of Sci & Technol of China, Hefei, China.

Source
Surface-Science (Netherlands), vol.553, no.1-3, p.189-97, 20 March 2004. , Published: Elsevier.

CODEN
SUSCAS.

ISSN
ISSN: 0039-6028, CCCC: 0039-6028/04/ ($30.00).

Availability
SICI: 0039-6028(20040320)553:1/3L.189:SDIS; 1-E.

Publication year
2004.

Language
EN.

Publication type
J Journal Paper.

Treatment codes
T Theoretical or Mathematical.

Abstract
Ordered arrays of **two-dimensional (2D)** strained islands on a solid surface have been generated recently by **mask** deposition or self-organization. Their feature sizes and shapes can be controlled in a broad way. Due to the competing effect of **edge** energy of islands and elastic energy caused by misfit strain, the **morphological** stability of such ordered island arrays becomes a critical issue. In this paper, we show, by a linear stability analysis, that an isolated circular island may undergo shape transition of various modes which are determined by the island size. We also perform a dynamical simulation for the **morphological** evolution of a hexagonal array of circular islands based on a continuum phase-field model. Numerical results indicate that long-range elastic interaction between islands mediated through the underlying substrate can significantly influence island shape. The

hexagonal island array can be either stable or unstable, critically depending on the initial radius and spacing of the islands as well as the amplitude of thermal fluctuation localized at the island **edge.** (32 refs).

Descriptors

internal-stresses; island-structure; numerical-analysis; solid-state-phase-transformations; stress-effects; surface-morphology.

Keywords

strain driven instability; hexagonal island array; solid substrates; **two** dimensional strained islands; solid surface; **mask** deposition; self organization; **edge** energy; elastic energy; misfit strain; **morphological** stability; ordered island arrays; linear stability analysis; isolated circular island; shape transition; island size; **morphological** analysis; circular islands; continuum phase field model; long range elastic interaction; island shape; thermal fluctuation; island **edge.**

Classification codes

A6820 (Solid surface structure).
A6470K (Solid-solid transitions).
A8130H (Constant-composition solid-solid phase transformations: polymorphic, massive, and order-disorder).
A0260 (Numerical approximation and analysis).

Copyright statement

Digital object identifier

http://dx.doi.org/10.1016/j.susc.2004.01.051.